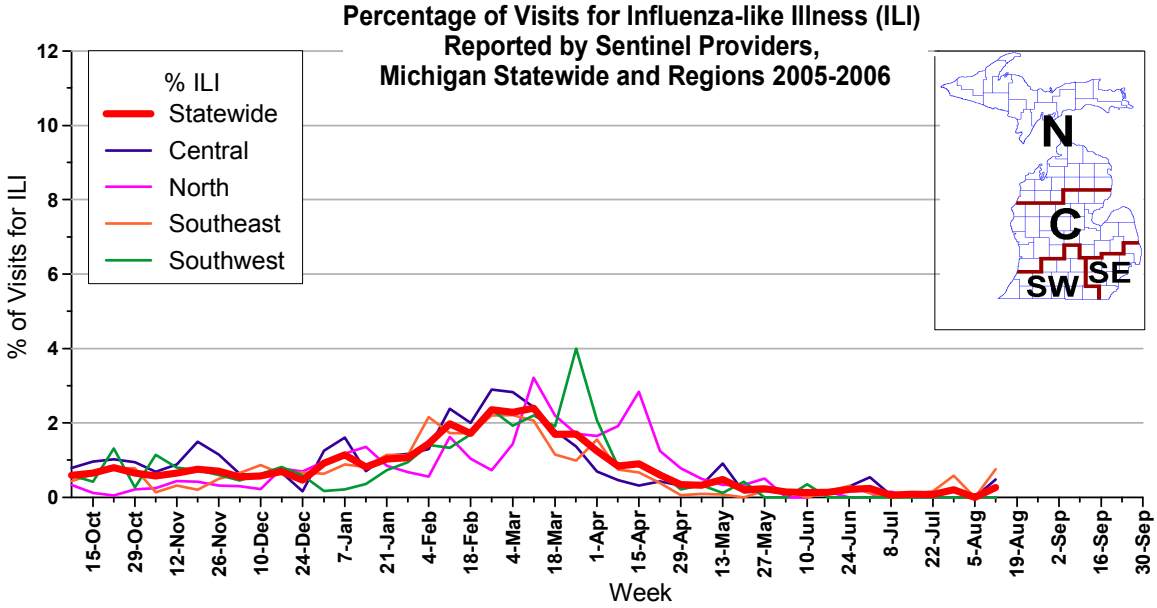
MIFluFocus
August 17, 2006
Weekly Influenza Surveillance and Avian Influenza Update

Michigan Disease Surveillance System: No recent aberrations have been detected in flu-like illness activity. It continues to remain very low and is comparable to last year at this time.

Emergency Department Surveillance: No recent aberrations have been detected in the level of either respiratory or constitutional emergency department visits. Both indicators remain low and are comparable to last year at this time.

Over-the-Counter Product Surveillance: A general increasing trend has been seen in sales of both antifever medications and thermometers. Antifever medication sales are now higher than at any point during peak flu season. Thermometer sales are now at similar level to those reported during peak flu season. Both indicators will continue to be monitored. No recent aberrations have been detected in the level of the remaining indicators, all of which remain very low and are comparable to last year at this time.

Sentinel Surveillance (**as of August 17, 2006**): During the week ending August 12, 2006, the proportion of visits due to influenza-like illness (ILI) increased slightly from last week to 0.3% of all visits. Low levels of ILI activity were reported in all regions; the percentage of visits due to ILI by region was 0.5%, Central; 0.0%, North; 0.8%, Southeast; and 0.0%, Southwest.



As part of pandemic influenza preparedness, CDC and MDCH highly encourage and recommend year-round participation from all sentinel providers. Data that we obtain over the summer will help us to establish a baseline level of activity during months that are not typically associated with high levels of influenza activity. New practices are encouraged to join influenza sentinel surveillance program today! Contact Rachel Potter at 517-335-9710 or potterr1@michigan.gov for more information.

Laboratory Surveillance (as of August 17, 2006): No reports were received for the past week. The MDCH laboratory has confirmed 138 influenza cases in Michigan over the 2005-2006 season, of which 132 were influenza A (H3N2) and 6 were influenza B.

Influenza-Associated Pediatric Mortality (as of August 17, 2006): There were no new reports this week. For the 2005-2006 influenza season, Michigan had one confirmed influenza-associated pediatric death from region 2S. During October 2, 2005 – May 20, 2006, CDC received reports of 35 influenza-associated pediatric deaths, 33 of which occurred during the current influenza season.

***Reminder: The CDC has asked all states to continue to collect information on any pediatric death associated with influenza infection. This includes not only any death in a child less than 18 years of age resulting from a clinically compatible illness confirmed to be influenza by an appropriate laboratory or rapid diagnostic test, but also unexplained death with evidence of an infectious process in a child. Refer to http://www.michigan.gov/documents/fluletter_107562_7.pdf for the complete protocol. It is important to immediately call or fax information to MDCH to ensure that appropriate clinical specimens can be obtained.

Congregate Settings Outbreaks (as of August 17, 2006): No reports were received during the past reporting week. A total of two congregate setting outbreaks have been reported to MDCH this season; one in Southwest Michigan in late February and one in Southeast Michigan in late March. Both outbreaks were MDCH laboratory confirmed as due to influenza A (H3N2).

The 2005-2006 Michigan Influenza Seasonal Summary is now available at http://www.michigan.gov/flu under "Seasonal Influenza – MDCH Laboratory Influenza Testing and Surveillance." Overall, this season was milder than the previous year, peaked in early to mid-March and was comprised mainly of influenza A infections.

International (WHO, as of August 17, 2006): During weeks 27–30, with the exception of New Zealand, where high levels of influenza activity were reported, overall influenza activity in both northern and southern hemispheres was low. In Argentina, localized influenza A(H1N1) activity was reported during weeks 29–30. Localized influenza A activity was reported in Australia during weeks 27–30. Chile reported localized influenza A(H3N2) and A(H1N1) activity during weeks 27–29. In the Hong Kong Special Administrative Region of China, influenza A(H1N1) virus has been circulating since the first week of 2006 together with B virus. Since week 11, A(H1N1) virus has predominated. Activity started to increase during week 23 and remained at a high level until week 30. New Zealand reported an increase in A(H3N2) activity during week 23. Since week 25, activity was reported as regional until week 30, when widespread A(H3N2) activity was reported. Localized influenza A(H1N1) activity has been reported in Thailand since week 26. During weeks 27–30, low influenza activity was reported in Brazil (A and B), Canada (A and B), Islamic Republic of Iran (B), Japan (H3 and B), Madagascar (H3), Mexico (A), New Caledonia (H3), South Africa (H3, A and B) and Sri Lanka (H1 and B). Philippines, Portugal and Slovenia reported no influenza activity.

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Weekly influenza activity reporting to the CDC is finished for the 2005-2006 influenza season.

End of Seasonal Report

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Avian Influenza Activity

WHO Pandemic Phase: Phase 3 - Human infection(s) with a new subtype, but no human-to-human spread or rare instances of spread to a close contact.

International Update: Reuters, August 11: Viet Nam, worried about a recurrence of the H5N1 bird flu which has already killed 42 of its people, has found more ducks and geese infected with a strain of avian influenza, state media reported on August 11th. The Saigon Giai Phong (Liberation Saigon) newspaper quoted Dong Manh Hoa, head of the Ho Chi Minh City Regional Veterinary Centre, as saying tests of the waterfowl in Tien Giang, Long An and Ben Tre provinces revealed the H5 subtype virus. A Ben Tre official told Reuters on Thursday more than 50 healthy waterfowl had been killed in the province after tests showed they had the H5 subtype, but there had been no outbreaks. The H5N1 virus swept across much of Asia in late 2003 and, although it has shown no signs of doing so yet, experts fear it could mutate into a form that can pass easily between people. It has not killed anyone in Vietnam this year, but recurrences in Thailand, Laos and China have alarmed Hanoi officials worried their country has become complacent. In an urgent directive issued on Thursday, Prime Minister Nguyen Tan Dung told officials "to focus strongly on instructing and deploying forces to carry out synchronized, preventive measures". Officials say a failure to control waterfowl, which can be silent carriers of bird flu, made Vietnam vulnerable to new outbreaks and wild birds believed to carry H5N1 would migrate soon from the north, raising the risk of outbreaks. Farmers in the Mekong Delta have been raising ducks in large numbers

despite a ban on breeding waterfowl due to remain in place until February 2007. At this time of year, when a rice harvest is underway in the region, ducks usually roam from field to field feeding on spilled grain.

Associated Press, August 12: Cambodia's Agriculture Ministry has confirmed a new outbreak of bird flu in poultry in the country's southeast, a ministry official said Saturday. Kao Phal, director of the ministry's animal health department, said the outbreak was the virulent H5N1 type of the virus. It was detected August 11th in Prey Veng province, which borders Vietnam, he said. The H5N1 virus, which re-emerged in Asia in late 2003, has killed at least 138 people worldwide, including 6 in Cambodia. The announcement came after the government ordered health officials to be on alert for possible human cases of bird flu. The alert followed recent outbreaks of the virus in poultry in neighboring countries and 2 recent human deaths from the disease in Thailand, a bird flu bulletin compiled by United Nations agencies said. It said the Cambodian Ministry of Health has "called all provincial rapid response teams to put them on alert and ask them to follow up with hospitals and health centers" on suspected human cases of bird flu. On August 11th, Vietnam reported its 1st cases of bird flu in poultry since December, sparking fears of a resurgence of the virus in the country, which had been hailed for controlling its spread. The U.N. bulletin said that since early this month, a Cambodian bird flu telephone "hot line" had received more than 150 calls from people in the countryside informing officials about dead poultry or asking for information about symptoms of the disease. It also said a daily one-hour radio call-in program about bird flu was launched early this month on a local station. The bulletin is published jointly by the World Health Organization, the Food and Agriculture Organization and UNICEF. The government has also enlisted Buddhist monks to help spread information on the virus. Workshops will be held this month for monks and other citizens at 2538 pagodas in 11 provinces, the U.N. said Wednesday.

WHO, August 14: The Ministry of Health in China has confirmed the country's 21st case of human infection with the H5N1 avian influenza virus. The case occurred in a 62-year-old male farmer from the north-western province of Xinjiang. He developed symptoms on June 19th and died on July 12th. Initial tests on patient specimens produced negative results. As a precautionary measure, tests were repeated during July and August and eventually produced positive results, which were confirmed today by the Ministry of Health. An epidemiological investigation of the case was unable to uncover a history of exposure to dead or diseased birds. The man had no history of travel during the month prior to symptom onset. No recent poultry outbreaks have been reported in the vicinity of the man's home. Xinjiang Province had not previously reported a human case. Of the 21 cases confirmed to date in China, 14 have been fatal.

The Ministry of Health in Indonesia has confirmed the country's 57th case of human infection with the H5N1 avian influenza virus. The case is a 17-year-old male from a remote village in Garut district, West Java Province. He developed symptoms on July 26thand was referred to hospital on August 9th. At the hospital, medical staff suspected H5N1 infection based on his respiratory symptoms and a history of exposure to dead poultry. Because of this suspicion, specimens were collected from the patient and sent for testing. Results received on August 12thwere positive for H5N1 infection. The patient is presently recovering. A thorough field investigation found that chicken and duck deaths occurred in the patient's household and neighborhood during the week prior to symptom onset. The case reportedly had direct contact with diseased chickens during the disposal of carcasses. The investigation also obtained information about a 20-year-old male who lived in a neighboring household where chickens were also dying. The man developed symptoms on July 26thand sought care at the local health centre on August 5th. He died of respiratory disease on August 6th, before arrangements could be made for transfer to hospital and before samples could be taken for testing. The cause of his illness and death remain undetermined. Of the 57 cases confirmed to date in Indonesia, 44 have been fatal.

FAO, August 16: World-famous actor and martial arts expert Jackie Chan stars in a new television public service announcement to alert children and their families around the world to the dangers of highly pathogenic avian influenza, or bird flu. The PSA was produced by the UN Children's Fund (UNICEF), the Food and Agriculture Organization (FAO) and the World Health Organization (WHO), with funding from the government of Japan. The one-minute spot shows Chan, a UNICEF Goodwill Ambassador, with six children and some very colorful origami birds that are used to convey an essential message. Chan tells the girls and boys in a firm tone: birds can pass on avian influenza to people, so it's important to stay away from sick and dead birds, especially chickens. He then nods approvingly as 8-year-old Ava pipes

out: “But playing with paper birds is fine.” While the PSA deals with a disease that has spread beyond Asia and often incites fear, it aims to do so with panache rather than panic. The PSA aims to harness the influence and popularity of Jackie Chan to reach the maximum number of households and will be broadcast as widely as possible. As the world’s biggest mass medium, television has a crucial role to play in communicating accurate and timely information about avian influenza, a disease that does not heed geographical borders or cultural boundaries.

ProMed, August 17: The discovery of a new type of bird flu virus in Thailand has prompted officials to ponder prevention and control measures to prevent further spread of the disease. A new type of the H5N1 strain has been confirmed in Nakhon Phanom, where over 300,000 chickens have died or been culled as a result of widespread infections, according to Yong Poovorawan, team leader of virologists monitoring changes in the virus since 2004. The strain has a genetic character close to that of the virus in southern China, he said, adding that virologists were still unsure how it crossed the border from there into Thailand. There are 4 types of the H5N1 virus in the region: the so-called Thai-Vietnamese type, the Indonesian type, and another 2 types occurring in China. The Thai-Vietnamese type has plagued Thailand since official confirmation of the 1st outbreak in early 2004. The virologist said the impact of the new strain on human health was so far no different from that of the Thai-Vietnamese type. But he warned officials to pay attention if they wanted to develop human vaccines which can tackle both types of the virus strain. "We now have 2 types of bird flu strain in the country. The new one may not yet have any significance in terms of its health impact but it certainly has significance for our control measures, which might have to improve to cope with its emergence," he said. Livestock Development Department chief Yukol Limlamthong said the agency would beef up controls on fowl movements between area zones, and he called on poultry raisers to tighten their bio-security measures. Director of the Epidemiology Bureau Kumnuan Ungchusak said scientists needed to be aware of every bird flu type emerging here, so human vaccines could be developed. But health officials would not strengthen bird flu control measures among humans as the present regime was already intensive, Dr Kumnuan said. Sick people found to be in close contact with ailing fowls would be listed as suspect cases, he said. Thailand is now in the 4th outbreak round, which has killed 2 people, one each in Phichit and Uthai Thani. Since the 1st round, more than 60 million fowls have been culled and 16 people have died.

WHO, August 17: The Ministry of Health in Indonesia has confirmed the country’s 58th case of human infection with the H5N1 avian influenza virus. The case occurred in a 9-year-old girl from a remote village in Garut district, West Java Province. She developed symptoms on August 1st, was hospitalized on August 14th, and died on August 15th. Recent chicken deaths were reported in her household. Three hamlets within the village are currently under investigation. An additional case from the village, but from another hamlet, was confirmed by the Ministry of Health on August 14th (see above story). This 17-year-old male developed symptoms on July 26th and is now recovering. Another death from severe respiratory disease occurred on August 5thin a 20-year-old neighbor, who is also now known to be a cousin. As no samples were taken for testing, the cause of his illness remains uncertain. Based on epidemiological and clinical findings, however, infection with the H5N1 virus is strongly suspected.

As both young men developed symptoms on the same day (July 26), epidemiologists assume that they acquired their infection from a shared environmental source. The currently recognized incubation period for H5N1 infection of 2 to 8 days makes human-human transmission between the two highly improbable. Teams from local health authorities, the Ministry of Health, and WHO are currently in the three hamlets investigating these cases and assessing the overall situation. Team members include experts in animal health. Recent die-offs of poultry are known to have occurred in the village, and all three cases described above had documented exposure to diseased chickens. Heightened awareness in the hamlets, supported by the presence of well-equipped teams, has led to the presentation of additional persons for medical evaluation. Specimens have been taken and tests are being conducted. Rumors of additional deaths from respiratory disease in the hamlets in late July and early August are also being investigated. Although the village is remote and access by road is difficult, good communications from the field have been established with the Ministry of Health and WHO. Of the 58 cases confirmed to date in Indonesia, 45 have been fatal.

Michigan Wild Bird Surveillance (USDA, August 14): The U.S. Departments of Agriculture and Interior today announced that routine surveillance has indicated the presence of H5 and N1 avian influenza subtypes in samples from two wild mute swans in Michigan, but testing has ruled out the possibility of this

being the highly pathogenic H5N1 strain that has spread through birds in Asia, Europe and Africa. Test results thus far indicate this is low pathogenicity avian influenza, which poses no threat to human health. The swans were sampled as part of the expanded avian influenza surveillance program. They were showing no signs of sickness, which suggests that this is low pathogenicity avian influenza. Additionally, genetic analysis of the virus conducted at USDA's National Veterinary Services laboratories (NVSL) in Ames, Iowa, suggests that it is similar to a low pathogenicity strain that has been found in North America. It is possible that these birds were not infected with an H5N1 strain, but instead with two separate avian influenza viruses, one containing H5 and the other containing N1. The confirmatory testing underway at NVSL will clarify whether one or more strains of the virus are present, the specific subtype, as well as pathogenicity. These results are expected within two weeks and will be made public when completed. It should be noted that wild birds are known to harbor many influenza viruses, and the finding of one or more of these viruses during routine testing is not unusual.

The swans were sampled August 8 at the Mouillee state game area located on the coast of Lake Erie in Monroe County, Michigan. The samples were taken by USDA Animal and Plant Health Inspection Service personnel as part of an expanded wild bird monitoring program. The Departments of Agriculture and Interior are working collaboratively with States to sample wild birds throughout the United States for the presence of highly pathogenic avian influenza. Initial screening tests on the swan samples were conducted by Michigan State University's Diagnostic Center for Population and Animal Health--part of USDA's National Animal Health Laboratory Network. These tests indicated the presence of an H5 avian influenza virus. Confirmatory testing at NVSL confirmed the H5 and the N1. This testing also suggests, but has not yet confirmed, that this is low pathogenicity avian influenza.

Low pathogenicity avian influenza (LPAI) commonly occurs in wild birds, where it typically causes only minor symptoms or no noticeable symptoms. These strains of the virus are not a human health concern. This includes LPAI H5N1, commonly referred to as the North American H5N1. This strain of low pathogenicity avian influenza is very different from the more severe HPAI H5N1 circulating overseas, which is commonly referred to as the Asian H5N1. Evidence of LPAI H5N1 has been found on two occasions in wild birds in the United States. In 1975 and 1986, it was detected in wild ducks. These detections occurred as part of routine sampling. LPAI H5N1 has also been detected in Canada, most recently in 2005. For more information, visit http://www.usda.gov/birdflu or http://www.avianflu.gov.

To learn about avian influenza surveillance in Michigan wild birds or to report dead waterfowl, go to Michigan's Emerging Disease website at http://www.michigan.gov/emergingdiseases

Michigan Pandemic Planning (July 31, 2006): The first quarterly Pandemic Influenza Planning Update from the Michigan Department of Community Health is now available on the internet at http://www.michigan.gov/documents/PandemicPlanningUpdate_I_168512_7.pdf. It contains a summary of MDCH pandemic influenza planning activities, as well as information on influenza surveillance and the activities of other state and federal agencies.

Table 1. H5N1 Influenza in Poultry (Outbreaks up to August 2, 2006)
(Source: http://www.oie.int/downld/AVIAN%20INFLUENZA/A_AI-Asia.htm Downloaded 8/4/2006)

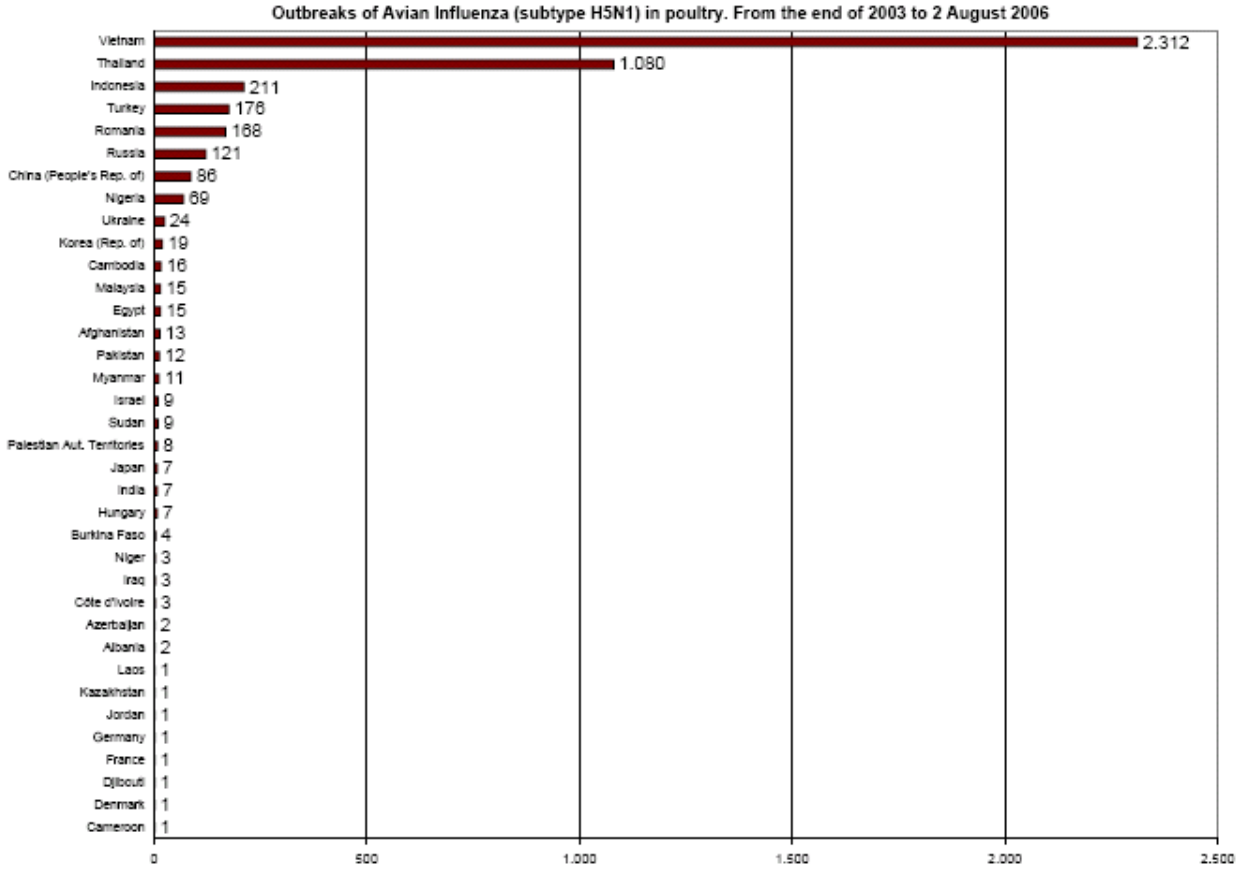

Table 2. H5N1 Influenza in Humans (Cases up to August 17, 2006)
(http://www.who.int/entity/csr/disease/avian_influenza/country/cases_table_2006_06_06/en/index.html Downloaded 8/17/2006)
Cumulative number of confirmed human cases of Avian Influenza A(H5N1) reported to WHO. The total number of cases includes number of deaths. WHO only reports laboratory-confirmed cases.

Country	2003		2004		2005		2006		Total	
	cases	deaths	cases	deaths	cases	deaths	cases	deaths	cases	deaths
Azerbaijan	0	0	0	0	0	0	8	5	8	5
Cambodia	0	0	0	0	4	4	2	2	6	6
China	1	1	0	0	8	5	12	8	21	14
Djibouti	0	0	0	0	0	0	1	0	1	0
Egypt	0	0	0	0	0	0	14	6	14	6
Indonesia	0	0	0	0	17	11	41	34	58	45
Iraq	0	0	0	0	0	0	2	2	2	2
Thailand	0	0	17	12	5	2	2	2	24	16
Turkey	0	0	0	0	0	0	12	4	12	4
Viet Nam	3	3	29	20	61	19	0	0	93	42
Total	4	4	46	32	95	41	94	63	239	140